AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in the present application.

1. – 58. (Cancelled)

59. (New) An information processing program stored in a computer-readable medium, the program being executable by a machine to perform:

a step of causing a computer to function as musical piece management means for reading information for generating musical tones and information as to at least a rhythm and a tempo that are set in relation to the information for generating musical tones, from a recording medium having recorded therein the information for generating musical tones and the information as to the at least a rhythm and tempo, and reproducing a musical piece while managing at least the rhythm and tempo; and

a step of causing the computer to function as mark/moving object display processing means for, when the musical piece management means reproduces the musical piece, arranging and displaying the same number of mark objects as beats corresponding to the information as to the rhythm of the musical piece reproduced and managed by the musical piece management means, the mark objects each having a shape corresponding to the number of the beats and being related to a sequence of the beats, on a screen of display means, further displaying on the screen of the display means a moving object so that the moving object travels between the mark objects on the screen periodically at a constant speed according to the sequence of the beats, and also controlling the display of the moving object and the mark objects by setting a special distance between the mark objects so that a cycle that the moving object travels over all the mark objects

at the constant speed matches a measure of the tempo of the musical piece reproduced and managed by the musical piece management means.

60. (New) The information processing program according to claim 59, further comprising:

a step of causing the computer to function as operation signal management means for managing an operation signal output from operational input means, the operation signal corresponding to an operational input made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with the mark object is coincident with timing that the operation signal is output from the operational input means to the operation signal management means in response to an operation to the operational input means made by a user; and

a step of causing the computer to function as determination mark object display processing means for displaying a determination mark object corresponding to a determination result of the determination means as to whether a coincidence of the timing is obtained, on the mark object associated with the determination result.

61. (New) The information processing program according to claim 59, further comprising:

a step of causing the computer to function as operation signal management means for managing an operation signal output from operational input means, the operational input means having a plurality of buttons and outputting the operation signal corresponding to an operational input to the buttons made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with the mark object is coincident with timing that the operation signal is output from the operational input means to the operation signal management means when a user operates a predetermined button that is set in advance out of the plurality of buttons;

a step of causing the computer to function as determination mark object display processing means for displaying a determination mark object corresponding to a determination result of the determination means as to whether a coincidence of the timing is obtained, on the mark object associated with the determination result.;

a step of causing the computer to function as symbol display processing means for displaying a predetermined symbol indicating the predetermined button on the mark object associated with the determination result of the determination means as to whether a coincidence of the timing is obtained, before the moving object moving on the screen overlaps with the mark object associated with the determination result; and

a step of causing the computer to function as mode switching means for switching, according to a predetermined set mode, between a display mode in which the symbol display processing means displays the predetermined symbol on the mark object and a non-display mode in which the symbol display processing means does not displays the predetermined symbol on the mark object.

62. (New) The information processing program according to claim 60, further comprising:

a step of causing the computer to function as earliness/lateness determination means for determining whether the timing that the operation signal is output from the operational input

means is earlier or later than the timing that the moving object overlaps with the mark object on the screen, when the determination means determines that the timing that the moving object overlaps with the mark object on the screen is not coincident with the timing that the operation signal is output from the operational input means; and

a step of causing the computer to function as earliness/lateness object display processing means for displaying an earliness/lateness object in proximity to the mark object associated with the determination result of the determination means as to whether a coincidence of the timing is obtained and at a position on the screen corresponding to earliness/lateness determined by the earliness/lateness determination means, when the determination means determines that the timing that the moving object overlaps with the mark object on the screen is not coincident with the timing that the operation signal is output from the operational input means.

63. (New) The information processing program according to claim 60, further comprising:

a step of causing the computer to function as notification means for generating notification information corresponding to the determination result of the determination means as to whether a coincidence of the timing is obtained for each measure of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

64. (New) The information processing program according to claim 59, wherein

the musical piece management means manages strength information corresponding to the level of playing volume that is preset for a reproduced musical piece, and

the program further comprises:

a step of causing the computer to function as operation signal management means for managing an operation signal output from strength input means, the operation signal corresponding to strength of an operational input made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the strength input means to the operation signal management means when a user operates the strength input means, and further determining whether strength information of the operational input that is sensed by the operation signal management means from the operation signal matches the strength information corresponding to the level of playing volume that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as notification means for generating notification information corresponding to a determination result of the determination means as to whether the two pieces of the strength information match each other when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

65. (New) The information processing program according to claim 64, further comprising:

a step of causing the computer to function as parameter control means for controlling modification of at least one of a parameter for setting the size of the mark object displayed on the screen by the mark/moving object display processing means and a parameter for setting a display color or brightness of the mark object displayed on the screen by the mark/moving object display processing means, depending on the level of playing volume that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means; and

a step of causing the computer to function as mode switching means for switching, according to a preset mode, between a mode in which the parameter control means modifies the parameters and a mode in which the parameter control means does not modify the parameters.

66. (New) The information processing program according to claim 59, wherein

the musical piece management means manages direction information indicating directions of playing instructions that are preset for a reproduced musical piece, and

the program further comprises:

a step of causing the computer to function as operation signal management means for managing an operation signal output from operation direction input means, the operation signal corresponding to a direction of an operational input made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the operation direction input means to the operation signal management means when a user operates the operation direction input means, and further determining whether direction information of the operational input sensed by the operation signal management means from the

operation signal matches the direction information of playing instructions that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as notification means for generating notification information corresponding to a determination result of the determination means as to whether the two pieces of the direction information match each other when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

67. (New) The information processing program according to claim 66, further comprising:

a step of causing the computer to function as symbol display processing means for displaying a predetermined symbol indicating a predetermined directional instruction button provided on the operation direction input means on the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as mode switching means for switching, according to a preset mode, between a mode in which the symbol display processing means displays the predetermined symbol on the mark object corresponding to the predetermined beat and a mode in which the symbol display processing means does not display the predetermined symbol on the mark object corresponding to the predetermined beat.

68. (New) The information processing program according to claim 59, wherein

the musical piece management means manages time length information as to the length of time of continuance of playing sound or silent state that are preset for a reproduced musical sound, and

the program further comprises:

a step of causing the computer to function as operation signal management means for managing an operation signal output from pause input means, the operation signal corresponding to an operational input of a pause instruction made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the pause input means to the operation signal management means when a user starts to operate the pause input means, and further determining whether an operation for prolonging sound or silent state is successfully made according to whether the operational input continues a predetermined period of time, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as notification means for generating notification information corresponding to a determination result of the determination means as to whether the time length information matches when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

69. (New) The information processing program according to claim 68, further comprising:

a step of causing the computer to function as symbol display processing means for displaying a predetermined symbol indicating a predetermined button that is operable as the pause input means, on the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as mode switching means for switching, according to a preset mode, between a mode in which the symbol display processing means displays the predetermined symbol on the mark object corresponding to the predetermined beat and a mode in which the symbol display processing means does not display the predetermined symbol on the mark object corresponding to the predetermined beat.

70. (New) The information processing program according to claim 59, wherein, when the musical piece management means reproduces a musical piece so that a rhythm thereof is changed in the middle of the musical piece, the mark/moving object display processing means arranges and displays on the screen of the display means, in a measure immediately before timing that the rhythm of the musical piece is changed, the same number of mark object as the number of beats of the changed musical piece so that the mark objects each have a shape corresponding to the number of beats of the changed musical piece and are displayed in relation to a sequence of the beats.

71. (New) A computer-readable recording medium having recorded therein an information processing program, the program when executed by a processor performs:

a step of causing a computer to function as musical piece management means for reading information for generating musical tones and information as to at least a rhythm and a tempo that are set in relation to the information for generating musical tones, from a recording medium having recorded therein the information for generating musical tones and the information as to the at least a rhythm and tempo, and reproducing a musical piece while managing at least the rhythm and tempo; and

a step of causing the computer to function as mark/moving object display processing means for, when the musical piece management means reproduces the musical piece, arranging and displaying the same number of mark objects as beats corresponding to the information as to the rhythm of the musical piece reproduced and managed by the musical piece management means, the mark objects each having a shape corresponding to the number of the beats and being related to a sequence of the beats, on a screen of display means, further displaying on the screen of the display means a moving object so that the moving object travels between the mark objects on the screen periodically at a constant speed according to the sequence of the beats, and also controlling the display of the moving object and the mark objects by setting a special distance between the mark objects so that a cycle that the moving object travels over all the mark objects at the constant speed matches a measure of the tempo of the musical piece reproduced and managed by the musical piece management means.

72. (New) The computer-readable recording medium according to claim 71, the information processing program further comprising:

a step of causing the computer to function as operation signal management means for managing an operation signal output from operational input means, the operation signal corresponding to an operational input made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with the mark object is coincident with timing that the operation signal is output from the operational input means to the operation signal management means in response to an operation to the operational input means made by a user; and

a step of causing the computer to function as determination mark object display processing means for displaying a determination mark object corresponding to a determination result of the determination means as to whether a coincidence of the timing is obtained, on the mark object associated with the determination result..

73. (New) The computer-readable recording medium according to claim 72, the information processing program further comprising:

a step of causing the computer to function as operation signal management means for managing an operation signal output from operational input means, the operational input means having a plurality of buttons and outputting the operation signal corresponding to an operational input to the buttons made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with the mark object is coincident with timing that the operation signal is output from the operational input means to the

operation signal management means when a user operates a predetermined button that is set in advance out of the plurality of buttons;

a step of causing the computer to function as determination mark object display processing means for displaying a determination mark object corresponding to a determination result of the determination means as to whether a coincidence of the timing is obtained, on the mark object associated with the determination result.;

a step of causing the computer to function as symbol display processing means for displaying a predetermined symbol indicating the predetermined button on the mark object associated with the determination result of the determination means as to whether a coincidence of the timing is obtained, before the moving object moving on the screen overlaps with the mark object associated with the determination result; and

a step of causing the computer to function as mode switching means for switching, according to a preset mode, between a display mode in which the symbol display processing means displays the predetermined symbol on the mark object and a non-display mode in which the symbol display processing means does not displays the predetermined symbol on the mark object.

74. (New) The computer-readable recording medium according to claim 72, the information processing program further comprising:

a step of causing the computer to function as earliness/lateness determination means for determining whether the timing that the operation signal is output from the operational input means is earlier or later than the timing that the moving object overlaps with the mark object on the screen, when the determination means determines that the timing that the moving object

overlaps with the mark object on the screen is not coincident with the timing that the operation signal is output from the operational input means; and

a step of causing the computer to function as earliness/lateness object display processing means for displaying an earliness/lateness object in proximity to the mark object associated with the determination result of the determination means as to whether a coincidence of the timing is obtained and at a position on the screen corresponding to earliness/lateness determined by the earliness/lateness determination means, when the determination means determines that the timing that the moving object overlaps with the mark object on the screen is not coincident with the timing that the operation signal is output from the operational input means.

75. (New) The computer-readable recording medium according to claim 72, the information processing program further comprising:

a step of causing the computer to function as notification means for generating notification information corresponding to the determination result of the determination means as to whether a coincidence of the timing is obtained for each measure of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

76. (New) The computer-readable recording medium according to claim 72, wherein

the musical piece management means manages strength information corresponding to the level of playing volume that is preset for a reproduced musical piece, and

the information processing program further comprises:

a step of causing the computer to function as operation signal management means for managing an operation signal output from strength input means, the operation signal corresponding to strength of an operational input made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the strength input means to the operation signal management means when a user operates the strength input means, and further determining whether strength information of the operational input that is sensed by the operation signal management means from the operation signal matches the strength information corresponding to the level of playing volume that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as notification means for generating notification information corresponding to a determination result of the determination means as to whether the two pieces of the strength information match each other when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

77. (New) The computer-readable recording medium according to claim 76, the information processing program further comprising:

a step of causing the computer to function as parameter control means for controlling modification of at least one of a parameter for setting the size of the mark object displayed on the screen by the mark/moving object display processing means and a parameter for setting a display color or brightness of the mark object displayed on the screen by the mark/moving object display processing means, depending on the level of playing volume that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means; and

a step of causing the computer to function as mode switching means for switching, according to a preset mode, between a mode in which the parameter control means modifies the parameters and a mode in which the parameter control means does not modify the parameters.

78. (New) The computer-readable recording medium according to claim 72, wherein

the musical piece management means manages direction information indicating a direction of playing instructions that is preset for a reproduced musical piece, and

the information processing program further comprises:

a step of causing the computer to function as operation signal management means for managing an operation signal output from operation direction input means, the operation signal corresponding to a direction of an operational input made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the operation direction input means to the operation signal management means when a user operates the operation direction input means, and further determining whether direction information of the operational input sensed by the operation signal management means from the

operation signal matches the direction information of playing instructions that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as notification means for generating notification information corresponding to a determination result of the determination means as to whether the two pieces of the direction information match each other when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

79. (New) The computer-readable recording medium according to claim 78, the information processing program further comprising:

a step of causing the computer to function as symbol display processing means for displaying a predetermined symbol indicating a predetermined directional instruction button provided on the operation direction input means on the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as mode switching means for switching, according to a preset mode, between a mode in which the symbol display processing means displays the predetermined symbol on the mark object corresponding to the predetermined beat and a mode in which the symbol display processing means does not display the predetermined symbol on the mark object corresponding to the predetermined beat.

80. (New) The computer-readable recording medium according to claim 71, wherein

the musical piece management means manages time length information as to the length of time of continuance of playing sound or silent state that are preset for a reproduced musical sound, and

the information processing program further comprises:

a step of causing the computer to function as operation signal management means for managing an operation signal output from pause input means, the operation signal corresponding to an operational input of a pause instruction made by a user;

a step of causing the computer to function as determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the pause input means to the operation signal management means when a user starts to operate the pause input means, and further determining whether an operation for prolonging sound or silent state is successfully made according to whether the operational input continues a predetermined period of time, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as notification means for generating notification information corresponding to a determination result of the determination means as to whether the time length information matches when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification

information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

81. (New) The computer-readable recording medium according to claim 71, the information processing program further comprising:

a step of causing the computer to function as symbol display processing means for displaying a predetermined symbol indicating a predetermined button that is operable as the pause input means, on the mark object corresponding to the predetermined beat; and

a step of causing the computer to function as mode switching means for switching, according to a preset mode, between a mode in which the symbol display processing means displays the predetermined symbol on the mark object corresponding to the predetermined beat and a mode in which the symbol display processing means does not display the predetermined symbol on the mark object corresponding to the predetermined beat.

82. (New) The computer-readable recording medium according to claim 71, wherein, when the musical piece management means reproduces a musical piece so that a rhythm thereof is changed in the middle of the musical piece, the mark/moving object display processing means arranges and displays the same number of mark object as the number of beats of the changed musical piece on the screen of the display means, in a measure immediately before timing that the rhythm of the musical piece is changed, so that the mark objects each have a shape corresponding to the number of beats of the changed musical piece and are displayed in relation to a sequence of the beats.

83. (New) An information processing apparatus comprising:

musical piece management means for reading information for generating musical tones and information as to at least a rhythm and a tempo that are set in relation to the information for generating musical tones, from a recording medium having recorded therein the information for generating musical tones and the information as to the at least a rhythm and tempo, and reproducing a musical piece while managing at least the rhythm and tempo; and

mark/moving object display processing means for, when the musical piece management means reproduces the musical piece, arranging and displaying the same number of mark objects as beats corresponding to the information as to the rhythm of the musical piece reproduced and managed by the musical piece management means, the mark objects each having a shape corresponding to the number of the beats and being related to a sequence of the beats, on a screen of display means, further displaying on the screen of the display means a moving object so that the moving object travels between the mark objects on the screen periodically at a constant speed according to the sequence of the beats, and also controlling the display of the moving object and the mark objects by setting a special distance between the mark objects so that a cycle that the moving object travels over all the mark objects at the constant speed matches a measure of the tempo of the musical piece reproduced and managed by the musical piece management means.

84. (New) The information processing apparatus according to claim 83, further comprising:

operation signal management means for managing an operation signal output from operational input means, the operation signal corresponding to an operational input made by a user;

determination means for determining whether timing that the moving object moving on the screen overlaps with the mark object is coincident with timing that the operation signal is output from the operational input means to the operation signal management means in response to an operation to the operational input means made by a user; and

determination mark object display processing means for displaying a determination mark object corresponding to a determination result of the determination means as to whether a coincidence of the timing is obtained, on the mark object associated with the determination result..

85. (New) The information processing apparatus according to claim 84, further comprising:

operation signal management means for managing an operation signal output from operational input means, the operational input means having a plurality of buttons and outputting the operation signal corresponding to an operational input to the buttons made by a user;

determination means for determining whether timing that the moving object moving on the screen overlaps with the mark object is coincident with timing that the operation signal is output from the operational input means to the operation signal management means when a user operates a predetermined button that is set in advance out of the plurality of buttons;

determination mark object display processing means for displaying a determination mark object corresponding to a determination result of the determination means as to whether a coincidence of the timing is obtained, on the mark object associated with the determination result.;

symbol display processing means for displaying a predetermined symbol indicating the predetermined button on the mark object associated with the determination result of the

determination means as to whether a coincidence of the timing is obtained, before the moving object moving on the screen overlaps with the mark object associated with the determination result; and

mode switching means for switching, according to a predetermined set mode, between a display mode in which the symbol display processing means displays the predetermined symbol on the mark object and a non-display mode in which the symbol display processing means does not displays the predetermined symbol on the mark object.

86. (New) The information processing apparatus according to claim 84, further comprising:

earliness/lateness determination means for determining whether the timing that the operation signal is output from the operational input means is earlier or later than the timing that the moving object overlaps with the mark object on the screen, when the determination means determines that the timing that the moving object overlaps with the mark object on the screen is not coincident with the timing that the operation signal is output from the operational input means; and

earliness/lateness object display processing means for displaying an earliness/lateness object in proximity to the mark object associated with the determination result of the determination means as to whether a coincidence of the timing is obtained and at a position on the screen corresponding to earliness/lateness determined by the earliness/lateness determination means, when the determination means determines that the timing that the moving object overlaps with the mark object on the screen is not coincident with the timing that the operation signal is output from the operational input means.

87. (New) The information processing apparatus according to claim 84, further comprising:

notification means for generating notification information corresponding to the determination result of the determination means as to whether a coincidence of the timing is obtained for each measure of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

88. (New) The information processing apparatus according to claim 83, wherein

the musical piece management means manages strength information corresponding to the level of playing volume that is preset for a reproduced musical piece, and

the apparatus further comprises:

operation signal management means for managing an operation signal output from strength input means, the operation signal corresponding to strength of an operational input made by a user;

determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the strength input means to the operation signal management means when a user operates the strength input means, and further determining whether strength information of the operational input that is sensed by the operation signal management means from the operation signal matches the strength information corresponding to the level of playing volume that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means, when the moving object

moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

notification means for generating notification information corresponding to a determination result of the determination means as to whether the two pieces of the strength information match each other when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

89. (New) The information processing apparatus according to claim 88, further comprising:

parameter control means for controlling modification of at least one of a parameter for setting the size of the mark object displayed on the screen by the mark/moving object display processing means and a parameter for setting a display color or brightness of the mark object displayed on the screen by the mark/moving object display processing means, depending on the level of playing volume that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means; and

mode switching means for switching, according to a preset mode, between a mode in which the parameter control means modifies the parameters and a mode in which the parameter control means does not modify the parameters.

90. (New) The information processing apparatus according to claim 83, wherein

the musical piece management means manages direction information indicating a direction of playing instructions that is preset for a reproduced musical piece, and

the apparatus further comprises:

operation signal management means for managing an operation signal output from operation direction input means, the operation signal corresponding to a direction of an operational input made by a user;

determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the operation direction input means to the operation signal management means when a user operates the operation direction input means, and further determining whether direction information of the operational input sensed by the operation signal management means from the operation signal matches the direction information of playing instructions that is preset for the predetermined beat of the musical piece reproduced and managed by the musical piece management means, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

notification means for generating notification information corresponding to a determination result of the determination means as to whether the two pieces of the direction information match each other when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

91. (New) The information processing apparatus according to claim 90, further comprising:

symbol display processing means for displaying a predetermined symbol indicating a predetermined directional instruction button provided on the operation direction input means on the mark object corresponding to the predetermined beat; and

mode switching means for switching, according to a preset mode, between a mode in which the symbol display processing means displays the predetermined symbol on the mark object corresponding to the predetermined beat and a mode in which the symbol display processing means does not display the predetermined symbol on the mark object corresponding to the predetermined beat.

92. (New) The information processing apparatus according to claim 83, wherein

the musical piece management means manages time length information as to the length of time during which playing sound or silent state that is preset for a reproduced musical piece continues, and

the apparatus further comprises:

operation signal management means for managing an operation signal output from pause input means, the operation signal corresponding to an operational input of a pause instruction made by a user;

determination means for determining whether timing that the moving object moving on the screen overlaps with a mark object corresponding to a predetermined beat is coincident with timing that the operation signal is output from the pause input means to the operation signal management means when a user starts to operate the pause input means, and further determining whether an operation for prolonging sound or silent state is successfully made according to

whether the operational input continues a predetermined period of time, when the moving object moving on the screen overlaps with the mark object corresponding to the predetermined beat; and

notification means for generating notification information corresponding to a determination result of the determination means as to whether the time length information matches when a coincidence of the timing is obtained, for one measure containing the predetermined beat of the musical piece that is reproduced and managed by the musical piece management means, displaying the generated notification information on the screen of the display means, and outputting sound of the generated notification information from sound output means.

93. (New) The information processing apparatus according to claim 92, further comprising:

symbol display processing means for displaying a predetermined symbol indicating a predetermined button that is operable as the pause input means, on the mark object corresponding to the predetermined beat; and

mode switching means for switching, according to a preset mode, between a mode in which the symbol display processing means displays the predetermined symbol on the mark object corresponding to the predetermined beat and a mode in which the symbol display processing means does not display the predetermined symbol on the mark object corresponding to the predetermined beat.

94. (New) The information processing apparatus according to claim 83, wherein, when the musical piece management means reproduces a musical piece so that a rhythm thereof is changed

in the middle of the musical piece, the mark/moving object display processing means arranges and displays the same number of mark object as the number of beats of the changed musical piece on the screen of the display means, in a measure immediately before timing that the rhythm of the musical piece is changed, so that the mark objects each have a shape corresponding to the number of beats of the changed musical piece and are displayed in relation to a sequence of the beats.

95. (New) An information processing method performed by an information processing apparatus, comprising:

a step performed by musical piece management means of reading information for generating musical tones and information as to at least a rhythm and a tempo that are set in relation to the information for generating musical tones, from a recording medium having recorded therein the information for generating musical tones and the information as to the at least a rhythm and tempo, and reproducing a musical piece while managing at least the rhythm and tempo; and

a step of performed by mark/moving object display processing means of, when the musical piece is reproduced, arranging and displaying the same number of mark objects as beats corresponding to the information as to the rhythm of the musical piece reproduced and managed by the musical piece management means, the mark objects each having a shape corresponding to the number of the beats and being related to a sequence of the beats, on a screen of display means, further displaying on the screen of the display means a moving object so that the moving object travels between the mark objects on the screen periodically at a constant speed according to the sequence of the beats, and also controlling the display of the moving object and the mark

objects by setting a special distance between the mark objects so that a cycle that the moving object travels over all the mark objects at the constant speed matches a measure of the tempo of the musical piece reproduced and managed by the musical piece management means.

96. (New) An information processing apparatus comprising:

a musical piece management processor for reading information for generating musical tones and information as to at least a rhythm and a tempo that are set in relation to the information for generating musical tones, from a recording medium having recorded therein the information for generating musical tones and the information as to the at least a rhythm and tempo, and reproducing a musical piece while managing at least the rhythm and tempo; and

a mark/moving object display processor for, when the musical piece management processor reproduces the musical piece, arranging and displaying the same number of mark objects as beats corresponding to the information as to the rhythm of the musical piece reproduced and managed by the musical piece management processor, the mark objects each having a shape corresponding to the number of the beats and being related to a sequence of the beats, on a screen of a display, further displaying on the screen of the display a moving object so that the moving object travels between the mark objects on the screen periodically at a constant speed according to the sequence of the beats, and also controlling the display of the moving object and the mark objects by setting a special distance between the mark objects so that a cycle that the moving object travels over all the mark objects at the constant speed matches a measure of the tempo of the musical piece reproduced and managed by the musical piece management processor.